Atty Dkt: 032301.443

AMENDMENT

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently amended) Surface-modified pyrogenically produced zinc oxide powder, characterized in that <u>they are aggregates and</u> have the following physico-chemical characteristic data:

BET surface areas: $18 \pm 5 \text{ m}^2/\text{g}$

C content: 0.5 to 1.0 wt.%,

wherein the surface modification includes silanization and the resultant modified surface is hydrophobic.

- 2. (Previously presented) Surface-modified pyrogenically produced zinc oxide powder according to Claim 1, which has been surface modified with a member selected from the group consisting of:
 - a) Organosilanes of the type (RO) $_3$ Si(C $_n$ H $_{2n+1}$) and RO) $_3$ Si(C $_n$ H $_{2n-1}$) R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- n=1-20
 - b) Organosilanes of the type $R'_x(RO)_ySi(C_nH_{2n+1})$ and $R'_x(RO)_ySi(C_nH_{2n-1})$ R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- R' = cycloalkyl n = 1 20 x+y=3 x = 1,2 y = 1,2
 - c) Halogeno-organosilanes of the type $X_3Si(C_nH_{2n+1})$ and $X_3Si(C_nH_{2n-1})$ $X=Cl,\ Br$ n=1-20
 - d) Halogeno-organosilanes of the type $X_2(R')Si(C_nH_{2n+1})$ and $X_2(R')Si(C_nH_{2n-1})$ X = Cl, Br R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-

$$R'=cycloalkyl$$

 $n = 1 - 20$

e) Halogeno-organosilanes of the type

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X(R')_2Si(C_nH_{2n+1}) and X(R')_2Si(C_nH_{2n-1}) X=Cl,\,Br R'= alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- R'= cycloalkyl n=1-20
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f) Organosilanes of the type (RO)₃Si(CH₂)_m-R'

R = alkyl, such as methyl-, ethyl-, propyl-

m = 0.1 - 20

R' = methyl-, aryl (for example $-C_6H_5$, substituted phenyl radicals)

$$-N-(CH_2-CH_2-NH_2)_2$$

$$-OOC(CH_3)C = CH_2$$

-NH-COO-CH
$$_3$$
, -NH-COO-CH $_2$ -CH $_3$, -NH-(CH $_2$) $_3$ Si(OR) $_3$

$$-S_x$$
-(CH₂)₃Si(OR)₃

g) Organosilanes of the type $(R'')_X(RO)_ySi(CH_2)_m-R'$

R' = methyl-, aryl (for example $-C_6H_5$, substituted phenyl radicals)

$$-C_4F_9$$
, $-OCF_2$ -CHF-CF₃, $-C_6F_{13}$, $-O$ -CF₂-CHF₂

$$-OOC(CH_3)C = CH_2$$

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-NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
                      -NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH- (CH_2)_3Si(OR)_3
                      -S_x-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                      -SH
                      - NR'R''R''' (R' = alkyl, aryl; R" = H, alkyl, aryl; R" = H, alkyl, aryl,
                            C_2H_4NR''''R''''' where R''''=H, alkyl
                             and R''''' = H, alkyl)
h) Halogeno-organosilanes of the type X<sub>3</sub>Si(CH<sub>2</sub>)<sub>m</sub>-R'
             X = Cl, Br
             m = 0.1 - 20
             R' = methyl-, aryl (for example -C<sub>6</sub>H<sub>5</sub>, substituted
                  phenyl radicals)
                  -C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
                  -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>,
                  -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>
                  -N-(CH2-CH2-NH2)2
                  -OOC(CH_3)C = CH_2
                  -OCH2-CH(O)CH2
                  -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
                 -NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-(CH_2)_3Si(OR)_3
                 -S_X-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                -SH
i) Halogeno-organosilanes of the type (R)X2Si(CH2)m-R'
             X = Cl, Br
             R = alkyl, such as methyl,- ethyl-, propyl-
            m = 0.1 - 20
            R' = methyl-, aryl (e.g. -C<sub>6</sub>H<sub>5</sub>, substituted phenyl radicals)
                 -C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
                 -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,
                 -N-(CH_2-CH_2-NH_2)_2
                 -OOC(CH_3)C = CH_2
                 -OCH2-CH(O)CH2
                 -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
                 -NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>,
                  wherein R can be methyl-, ethyl-, propyl-, butyl-
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Atty Dkt: 032301.443

 $-S_X$ -(CH₂)₃Si(OR)₃, wherein R can be methyl-, ethyl-, propyl-, butyl-SH

j) Halogeno-organosilanes of the type (R)₂X Si(CH₂)_m-R'

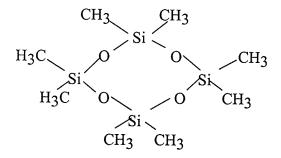
k) Silazanes of the type $R'R_2Si-N-SiR_2R'$

-SH

|-14-51K | | | H

R = alkyl, vinyl, aryl R' = alkyl, vinyl, aryl

Cyclic polysiloxanes of the type D 3, D 4, D 5, wherein D 3, D 4 and D 5 are understood as cyclic polysiloxanes with 3, 4 or 5 units of the type -O-Si(CH₃)₂-.E.g. octamethylcyclotetrasiloxane = D 4



Atty Dkt: 032301.443

m) Polysiloxanes or silicone oils of the type

- R = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl und substituted phenyl radicals, $(CH_2)_n$ -NH₂, H
- R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl- and substituted phenyl radicals, $(CH_2)_n$ -NH₂, H
- R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl- and substituted phenyl radicals, $(CH_2)_n$ -NH₂, H
- R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl und substituted phenyl radicals, $(CH_2)_n$ -NH₂, H
- 3. (Previously presented) A process for the preparation of the surface-modified pyrogenically produced zinc oxide powder according to Claim 1, comprising optionally spraying a zinc oxide with water, spraying a surface-modifying agent at room temperature to obtain a zinc oxide sprayed with said surface-modifying agent, heat treating said zinc oxide at a temperature of 50 to 400°C over a period of 1 to 6 hours to thereby obtain a surface-modified zinc oxide.
- 4. (Original) The process according to Claim 3, wherein the surface-modifying agent is a member selected from the group consisting of:

Atty Dkt: 032301.443

a) Organosilanes of the type (RO) $_3\mathrm{Si}(\mathrm{C}_n\mathrm{H}_{2n+1})$ and RO) $_3\mathrm{Si}(\mathrm{C}_n\mathrm{H}_{2n-1})$

$$R = \text{alkyl}$$
, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- $n = 1 - 20$

b) Organosilanes of the type $R'_x(RO)_ySi(C_nH_{2n+1})$ and $R'x(RO)_ySi(C_nH_{2n-1})$

R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-

R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-R'=cycloalkyl

n = 1 - 20

x+y=3

x = 1,2

y = 1,2

c) Halogeno-organosilanes of the type $X_3 \mathrm{Si}(C_n H_{2n+1})$ and $X_3 \mathrm{Si}(C_n H_{2n-1})$

$$X = Cl, Br$$

n = 1 - 20

d) Halogeno-organosilanes of the type $X_2(R')Si(C_nH_{2n+1})$ and $X_2(R')Si(C_nH_{2n-1})$

X = Cl, Br

R' = alkyl, such as, for example, methyl-, ethyl-,

n-propyl-, i-propyl-, butyl-

R'=cycloalkyl

n = 1 - 20

e) Halogeno-organosilanes of the type

 $X(R')_2Si(C_nH_{2n+1})$ and $X(R')_2Si(C_nH_{2n-1})$

X = Cl, Br

R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-

R'=cycloalkyl

n = 1 - 20

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f) Organosilanes of the type (RO)<sub>3</sub>Si(CH<sub>2</sub>)<sub>m</sub>-R'
                R = alkyl, such as methyl-, ethyl-, propyl-
                m = 0.1 - 20
                R' = methyl-, aryl (for example -C_6H_5,
                            substituted phenyl radicals)
                    -C<sub>4</sub>F<sub>9</sub>, OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
                   -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,
                    -N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>
                   -OOC(CH_3)C = CH_2
                   -OCH<sub>2</sub>-CH(O)CH<sub>2</sub>
                   -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
                   -NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-
                           (CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                   -S_x-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                   -SH
                   -NR'R''' (R' = alkyl, aryl; R'' = H,
                           alkyl, aryl; R''' = H, alkyl, aryl, benzyl, C_2H_4NR''' R''''' where R'''' =
               H, alkyl and R''''' = H, alkyl)
g) Organosilanes of the type (R'')_X(RO)_VSi(CH_2)_m-R'
            R'' = alkyl
                                  x+y
                                                = 2
                = cycloalkyl x
                                             = 1.2
            y = 1.2
            m = 0.1 \text{ to } 20
            R' = methyl-, aryl (for example -C_6H_5, substituted phenyl radicals)
                  -C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
                  -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>- NH<sub>2</sub>,
                  -N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>
                  -OOC(CH_3)C = CH_2
                  -OCH<sub>2</sub>-CH(O)CH<sub>2</sub>
                  -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
                  -NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-
                                               (CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                   -S_{x}-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                  - NR'R'''(R' = alkyl, aryl; R'' = H, alkyl, aryl; R''' = H, alkyl, aryl,
                 benzyl,
                 C_2H_4NR''''R''''' where R''''=H, alkyl and R'''''=H, alkyl)
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h) Halogeno-organosilanes of the type X<sub>3</sub>Si(CH<sub>2</sub>)<sub>m</sub>- R'
             X = C1, Br
             m = 0.1 - 20
             R' = methyl-, aryl (for example -C_6H_5, substituted phenyl radicals)
                       -C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
                       -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>,
                       -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>
                       -N-(CH2-CH2-NH2)2
                       -OOC(CH_3)C = CH_2
                       -OCH2-CH(O)CH2
                       -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
                       -NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-(CH_2)_3Si(OR)_3
                       -S_X-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                       -SH
i) Halogeno-organosilanes of the type (R)X_2Si(CH_2)_m-R'
            X = Cl, Br
            R = alkyl, such as methyl,- ethyl-, propyl-
            m = 0.1 - 20
            R' = methyl-, aryl (e.g. -C_6H_5, substituted
                phenyl radicals)
                -C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
                -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,
                -N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>
                -OOC(CH_3)C = CH_2
                -OCH2-CH(O)CH2
                -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
                -NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-(CH_2)_3Si(OR)_3,
                 wherein R can be methyl-, ethyl-, propyl-, butyl-
                -S_X-(CH_2)_3Si(OR)_3, wherein R can be methyl-, ethyl-, propyl-, butyl-
                -SH
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Atty Dkt: 032301.443

j) Halogeno-organosilanes of the type $(R)_2X$ Si $(CH_2)_m$ -R'

$$X = Cl, Br$$

R = alkyl

m = 0.1 - 20

R' = methyl-, aryl (e.g. - C_6H_5 , substituted phenyl radicals)

 $\hbox{-C}_4F_9,\hbox{-OCF}_2\hbox{-CHF-CF}_3,\hbox{-C}_6F_{13},\hbox{-O-CF}_2\hbox{-CHF}_2$

-NH₂, -N₃, -SCN, -CH=CH₂, -NH-CH₂-CH₂-NH₂

-N-(CH₂-CH₂-NH₂)₂

 $-OOC(CH_3)C = CH_2$

-OCH₂-CH(O)CH₂

-NH-CO-N-CO-(CH₂)₅

-NH-COO-CH $_3$, -NH-COO-CH $_2$ -CH $_3$, -NH-(CH $_2$) $_3$ Si(OR) $_3$

 $-S_X$ -(CH₂)₃Si(OR)₃

-SH

k) Silazanes of the type $R'R_2Si\text{-}N\text{-}SiR_2R'$

| H

R = alkyl, vinyl, aryl

R' = alkyl, vinyl, aryl

 Cyclic polysiloxanes of the type D 3, D 4, D 5, wherein D 3, D 4 and D 5 are understood as cyclic polysiloxanes with 3, 4 or 5 units of the type -O-Si(CH₃)₂-.E.g. octamethylcyclotetrasiloxane = D 4

Atty Dkt: 032301.443

m) Polysiloxanes or silicone oils of the type

- R = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl und substituted phenyl radicals, $(CH_2)_n$ -NH₂, H
- R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl- and substituted phenyl radicals, $(CH_2)_n$ -NH₂, H
- R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl- and substituted phenyl radicals, $(CH_2)_n$ -NH₂, H
- R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl und substituted phenyl radicals, $(CH_2)_n$ -NH₂, H
- 5. (Previously presented) A process for the preparation of the surface-modified pyrogenically produced zinc oxide powder according to Claim 1, comprising optionally spraying zinc oxide with water, treating said zinc oxide with a surface-modifying agent in vapour form and then heat-treating the resulting zinc oxide at a temperature of 50 to 800°C over a period of 0.5 to 6 hours to thereby obtain a surface-modified zinc oxide.

6. (Original) The process according to Claim 5, wherein the surface-modifying agent is a member selected from the group consisting of:

- a) Organosilanes of the type (RO) $_3\mathrm{Si}(\mathrm{C_nH_{2n+1}})$ and RO) $_3\mathrm{Si}(\mathrm{C_nH_{2n-1}})$ R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- n = 1 20
- b) Organosilanes of the type $R'_x(RO)_ySi(C_nH_{2n+1})$ and $R'x(RO)ySi(C_nH_{2n-1})$ R= alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- R'= alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- R'= cycloalkyl n=1-20 x+y=3 x=1,2 y=1,2
- c) Halogeno-organosilanes of the type $X_3Si(C_nH_{2n+1})$ and $X_3Si(C_nH_{2n-1})$ $X=Cl,\ Br$ n=1-20
- d) Halogeno-organosilanes of the type $X_2(R')Si(C_nH_{2n+1})$ and $X_2(R')Si(C_nH_{2n-1})$ X=Cl, Br R'= alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- R'= cycloalkyl n=1-20
- e) Halogeno-organosilanes of the type

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X(R')_2Si(C_nH_{2n+1}) and X(R')_2Si(C_nH_{2n-1}) X=Cl,\,Br R'= alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl- R'= cycloalkyl n=1-20
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f) Organosilanes of the type (RO)<sub>3</sub>Si(CH<sub>2</sub>)<sub>m</sub>-R'
          R = alkyl, such as methyl-, ethyl-, propyl-
          m = 0.1 - 20
          R' = methyl-, aryl (for example -C<sub>6</sub>H<sub>5</sub>, substituted phenyl radicals)
             -C<sub>4</sub>F<sub>9</sub>, OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
             -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,
             -N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>
             -OOC(CH_3)C = CH_2
             -OCH2-CH(O)CH2
             -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
             -NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-(CH_2)_3Si(OR)_3
             -S_X-(CH<sub>2</sub>)<sub>3</sub>Si(OR<sub>)3</sub>
             -SH
             -NR'R" (R' = alkyl, aryl; R'' = H, alkyl, aryl; R''' = H, alkyl, aryl, benzyl,
         C_2H_4NR''''R''''' where R''''=H, alkyl and R'''''=H, alkyl)
g) Organosilanes of the type (R'')_x(RO)_vSi(CH_2)_m-R'
        R'' = alkyl
                             x+y=2
            = cycloalkyl x = 1,2
        y = 1.2
        m = 0.1 \text{ to } 20
        R' = methyl-, aryl (for example -C_6H_5, substituted
            phenyl radicals)
            -C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
            -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>- NH<sub>2</sub>,
            -N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>
            -OOC(CH_3)C = CH_2
            -OCH<sub>2</sub>-CH(O)CH<sub>2</sub>
            -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
            -NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
           -S_x-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                 -SH
            - NR'R''R''' (R' = alkyl, aryl; R'' = H, alkyl, aryl; R''' = H, alkyl, aryl,
                    benzyl,
                    C_2H_4NR''''R''''' where R''''=H, alkyl and R'''''=H, alkyl)
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h) Halogeno-organosilanes of the type X<sub>3</sub>Si(CH<sub>2</sub>)<sub>m</sub>- R'
               X = Cl, Br
               m = 0.1 - 20
               R' = methyl-, aryl (for example -C<sub>6</sub>H<sub>5</sub>, substituted
                    phenyl radicals)
                    -C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
                    -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>,
                    -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>
                    -N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>
                    -OOC(CH_3)C = CH_2
                    -OCH<sub>2</sub>-CH(O)CH<sub>2</sub>
                    -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
                     -NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                     -S_x-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>
                     -SH
i) Halogeno-organosilanes of the type (R)X2Si(CH2)m-R'
               X = Cl, Br
              R = alkyl, such as methyl,- ethyl-, propyl-
               m = 0.1 - 20
               R' = methyl-, aryl (e.g. -C_6H_5, substituted phenyl radicals)
                      -C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>
                      -NH<sub>2</sub>, -N<sub>3</sub>, -SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,
                      -N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>
                      -OOC(CH_3)C = CH_2
                      -OCH<sub>2</sub>-CH(O)CH<sub>2</sub>
                      -NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>
                      -NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>,
                             wherein R can be methyl-, ethyl-, propyl-, butyl-
                             -S_x-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>, wherein R can be methyl-, ethyl-, propyl-,
                      butyl-
                      -SH
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j) Halogeno-organosilanes of the type (R)_2X Si(CH_2)_m-R' X=Cl, Br R=alkyl m=0,1-20 R'=methyl-, aryl (e.g. -C_6H_5, substituted phenyl radicals) -C_4F_9, -OCF_2-CHF-CF_3, -C_6F_{13}, -O-CF_2-CHF_2 -NH_2, -N_3, -SCN, -CH=CH_2, -NH-CH_2-CH_2-NH_2 -N-(CH_2-CH_2-NH_2)_2 -OOC(CH_3)C=CH_2 -OCH_2-CH_2-NH_2-CH_2-NH_3-NH_3-CO-N-CO-(CH_3)_3-NH_3-NH_3-NH_3-NH_3-NH_3-NH_3-NH_3-NH_3-Sy-(CH_3)Si(OR)_3-Sy-(CH_3)Si(OR)_3-Sy-(CH_3)Si(OR)_3-Sy-(CH_3)Si(OR)_3-SH
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Atty Dkt: 032301.443

k) Silazanes of the type R'R₂Si-N-SiR₂R'

1) Cyclic polysiloxanes of the type D 3, D 4, D 5, wherein D 3, D 4 and D 5 are understood as cyclic polysiloxanes with 3, 4 or 5 units of the type -O- $Si(CH_3)_2$ -.E.g. octamethylcyclotetrasiloxane = D 4

m) Polysiloxanes or silicone oils of the type

$$\begin{array}{c} \text{Y-O-} & \begin{pmatrix} R \\ | \\ | \\ \text{Si-O} \\ | \\ R' \end{pmatrix} - \begin{pmatrix} R'' \\ | \\ \text{Si-O} \\ | \\ R' \end{pmatrix}_{n} \begin{array}{c} m = 0,1,2,3,...\infty \\ n = 0,1,2,3,...\infty \\ u = 0,1,2,3,...\infty \\ Y = \text{CH}_{3}, \text{H, } C_{n}\text{H}_{2n+1} \quad n = 1-20 \\ Y = \text{Si(CH}_{3})_{3}, \text{Si(CH}_{3})_{2}\text{H} \\ & \text{Si(CH}_{3})_{3}, \text{Si(CH}_{3})_{2}\text{H} \end{array}$$

$$m = 0,1,2,3,...\infty$$

 $n = 0,1,2,3,...\infty$
 $u = 0,1,2,3,...\infty$

Si(CH₃)₂OH, Si(CH₃)₂(OCH₃),

 $Si(CH_3)_2(C_nH_{2n+1})$ n=1-20

R = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl und substituted phenyl radicals,

Atty Dkt: 032301.443

$$(CH2)n-NH2, H$$

R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl- and substituted phenyl radicals, (CH₂)_n-NH₂, H

R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl- and substituted phenyl radicals, $(CH_2)_n$ -NH₂, H

R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl und substituted phenyl radicals, $(CH_2)_n-NH_2, H$

- 7. (Previously presented) A cosmetic preparation comprising a dermatologically acceptable carrier and the surface-modified pyrogenically produced zinc oxide powder of Claim 1.
- 8. (Previously presented) A cosmetic preparation comprising a dermatologically acceptable carrier and the surface-modified pyrogenically produced zinc oxide powder of Claim 2.
- 9. (Previously presented) A sunscreen preparation comprising a dermatologically acceptable carrier and the surface modified pyrogenically produced zinc oxide powder of Claim 1.
- 10. (Original) A sunscreen preparation comprising a dermatologically acceptable carrier and the surface modified pyrogenically produced zinc oxide powder of Claim 2.
- 11. (Previously presented) The sunscreen preparation according to Claim 9, wherein the dermatologically acceptable carrier is a member selected from the group consisting of octocrylene, ethylhexyl methoxycinnamate, phenylbenzimidazole sulfonic acid, and bisethylhexyloxy methoxyphenyl triazine.
- 12. (Previously presented) The surface-modified pyrogenically produced zinc oxide powder according to Claim 1 made from a zinc oxide which is a pyrogenically produced zinc oxide powder having a BET surface area of 10 to 100 m²/g in the form of aggregates of anisotropic primary particles wherein the aggregates have an average diameter of 50 to 300 nm.

Atty Dkt: 032301.443

13. (Previously presented) The surface-modified pyrogenically produced zinc oxide powder according to Claim 12 wherein the aggregates have a shape factor F (circle) of below 0.5.

14. (Previously presented) The surface-modified pyrogenically produced zinc oxide powder according to Claim 12 wherein the zinc oxide powder displays at its surface an oxygen concentration as non-desorbable moisture in the form of Zn-OH and/or Zn-OH₂ units of at least 40%.